

REMARKS

Claims 1-3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Muramatsu (U.S. 2002/00220859 A1) (hereinafter "Muramatsu") in view Higashi et al. (U.S. Patent No.: 5,918,113) (hereinafter "Higashi") and further in view of Saito (JP 2003-124259) (hereinafter "Saito"). These rejections are respectfully traversed for at least the following reasons.

Applicants respectfully submit that the invention as disclosed in the instant application was developed based on a need for allowing the air inside the space between the thinned portion of a semiconductor substrate and a wiring substrate to escape. Meanwhile, because the device disclosed in Muramatsu includes a thinned portion, the space between the substrates fully filled with resin, the problem of the distortion of the semiconductor substrate caused by the air expansion/contraction in principle does not occur. Therefore, Applicants respectfully submit that a person having ordinary skill in the subject art would not be provided with any motivation to let the air in the space escape out by means of the communication portion. Therefore, Applicants respectfully submit that the invention as disclosed in the instant application could not be easily be derived from the disclosure of Muramatsu.

Turning now to the applied Higashi reference, Applicants respectfully submit that Higashi does not include the thinned portion as included in the instant application's invention. Accordingly, the problem associated with the distortion of the semiconductor substrate caused by the air expansion/contraction in principle does not occur. In addition, Applicants respectfully submit that the space between the substrates is fully filled with resin. Therefore, Applicants respectfully submit that a person having ordinary skill in the subject art would not be provided

with any motivation to let the air in the space escape out by means of the communication portion. Therefore, Applicants respectfully submit that the invention as disclosed in the instant application could not be easily be derived from the disclosure of Higashi. Applicants respectfully submit that Higashi merely discloses the existence of the resin sheet.

Applicants respectfully submit that even assuming, strictly arguendo, that Muramatsu and Higashi were combined, the space between the substrates would be fully filled with resin sheet. Therefore, Applicants respectfully submit that a person having ordinary skill in the subject art would not be provided with any motivation to let the air in the space escape out by means of the communication portion to any extent.

Turning now to the applied Saito reference, Applicants respectfully submit that Saito discloses a liquid crystal injection technology in the LCD. As a result, Applicants respectfully submit that Saito is directed to a divergent field of art from the back-illuminated semiconductor device field of art of the instant application. According to MPEP § 2141.01(a), “any need or problem known in the field of endeavor at the time of the invention and addressed by the patent [or application at issue] can provide a reason for combining the elements in the manner claimed (emphasis added).” KSR International Co. v. Teleflex, Inc., 82 USPQ2d 1385, 1397 (2007). Applicants respectfully submit that there is no rational reason for one having ordinary skill in the art to combine the liquid crystal injection hole (32) with the divergent technology disclosed in the other cited references showing a back-illuminated semiconductor device. Therefore, for at least the foregoing reasons, Applicants respectfully submit that the invention as disclosed in the instant application could not be derived from the disclosures of Muramatsu, Higashi and/or Saito, whether taken separately or in combination with each other.

More particularly, Applicants traverse the rejection in the Office Action at least because a basic assertion by the Examiner which is central to the reason for rejection is based on an incorrect technical understanding. In this regard, according to item 11 at page 5 of the Office Action, while the Examiner points out that, of the cited references, Saito in particular has a communicating portion laterally penetrating the resin sheet, Applicants respectfully submit that Saito does not disclose such a feature to any extent.

While the Examiner may identify the inlet (32 in Fig. 4) for the injection of liquid crystal in Saito as meeting the communicating portion feature of independent claim 1 of the instant application, Applicants respectfully traverse such an assertion because this inlet (32) is sealed by a sealing material (31) as described in the last part of paragraph [0076]. Therefore, Applicants respectfully submit that this inlet (32) cannot be properly interpreted as meeting the communicating portion that penetrates the resin sheet features described in independent claim 1 of the instant application. Therefore, Applicants respectfully submit that even assuming, strictly arguendo, that these references were combined as asserted in the Office Action, because the inlet (32) in the resultant arrangement will be blocked, the invention disclosed in the instant application still could not be derived based on the disclosures of these applied references, whether taken separately or in combination with each other.

Accordingly, Applicants respectfully assert that the rejection under 35 U.S.C. § 103(a) should be withdrawn because Muramatsu, Higashi, and Saito, whether taken separately or combined, do not teach or suggest each feature of claims 1-3 of the instant application. As pointed out by MPEP § 2143.03, “[a]ll words in a claim must be considered in judging the

patentability of that claim against the prior art.’ In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).”

Independent claim 3 includes similar features as discussed above with regard to independent claim 1 of the instant application. Accordingly, similar arguments as set forth above with regard to independent claim 1 of the instant application also apply to independent claim 3 of the instant application.

Furthermore, Applicants respectfully assert that the dependent claims are allowable at least because of their dependence from independent claim 1, and the reasons discussed previously.

CONCLUSION

In view of the foregoing, Applicants respectfully request that the current rejections be withdrawn as the pending claims are in condition for allowance. Applicants respectfully request timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicant’s undersigned representative to expedite prosecution. A favorable action is awaited.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. § 1.16 and 1.17 which may be required, including

any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0573.

This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

DRINKER BIDDLE & REATH LLP



By:

Paul A. Fournier

Reg. No. 41,023

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Customer No. 055694

DRINKER BIDDLE & REATH LLP

1500 K Street, N.W., Suite 1100

Washington, DC 20005-1209

Tel.: (202) 842-8800

Fax: (202) 842-8465